

PERMIT NO. HI 0021874

**AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. §1251 et seq.; the "Act") and Hawaii Revised Statutes (HRS), Chapter 342D, and Hawaii Administrative Rules (HAR) Chapters 11-54 and 11-55, Department of Health (DOH), State of Hawaii,

LANAI HOLDINGS, LLC, aka PULAMA LANAI

(hereinafter PERMITTEE),

is authorized to discharge permeate, hypersaline concentrate, and storm water overflows from a backup detention basin system through Outfall Serial No. 001, located at discharge point coordinates: Latitude 20.745475 N and Longitude 156.897472 W, to the receiving waters named Inland Unnamed Gulch,

from its Manele Reverse Osmosis Desalination Facility Pilot Plant Testing Project, located west of Manele Road and Hulopoe Road, and north of Kapihaa Place, in Manele, Island of Lanai, Hawaii, TMKs: (2) 4-009-002:001 and (2) 4-009-017:010, in accordance with the effluent limitations, monitoring requirements and other conditions set forth herein, and in the attached DOH "Standard NPDES Permit Conditions (Version 14)."

All reference to Title 40 of the Code of Federal Regulations (CFR) are to regulations that are in effect on July 1, 2013, except as otherwise specified. Unless other specified herein, all terms are defined as provided in the applicable regulations in Title 40 of the CFR.

This permit will become effective **June 20, 2014**.

This permit and the authorization to discharge will expire at midnight, **June 19, 2019**.

Signed this 20th day of June, 2014.



(For) Director of Health

**FINAL PERMIT
June 20, 2014**

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ATTACHMENT:
STANDARD NPDES PERMIT CONDITIONS (Version 14)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the effective date of this permit and lasting until **June 19, 2019**, the Permittee is authorized to discharge permeate, hypersaline concentrate, and storm water overflows from a backup detention basin system designated for the Manele Reverse Osmosis Desalination Facility Pilot Plant Testing Project through Outfall Serial No. 001 in accordance with the effluent limitations and monitoring requirements specified below.

1. Numerical Limitations:

- a. The discharge from Outfall Serial No. 001 shall be limited and monitored by the Permittee as specified below:

PARAMETER	DISCHARGE LIMITATION	UNIT	MINIMUM FREQUENCY	SAMPLE TYPE
	Single Sample Maximum			
Flow	Report	mgd	10	Estimated or Calculated
Total Suspended Solids	50.0 ² 30.0 ³	mg/l	10	Grab ¹
Turbidity	15.0 ² 5.5 ³	NTU	10	Grab ¹
pH Range	5.5 – 8.0	Standard Units	10	Grab ^{1,4}
Total Nitrogen	520.0 ² 380.0 ³	µg/l	10	Grab ¹
Nitrate + Nitrite Nitrogen	180.0 ² 90.0 ³	µg/l	10	Grab ¹
Total Phosphorus	100.0 ² 60.0 ³	µg/l	10	Grab ¹
Chromium (VI), Total Recoverable	16	µg/l	10	Composite
Copper, Total Recoverable	6	µg/l	10	Composite
Nickel, Total Recoverable	5	µg/l	10	Composite
Selenium, Total Recoverable	20	µg/l	10	Composite
Total Residual Chlorine	19	µg/l	10	Grab ^{1,5}

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PARAMETER	DISCHARGE LIMITATION	UNIT	MINIMUM FREQUENCY	SAMPLE TYPE
	Single Sample Maximum			
Specific Conductance	≤ 300	µmhos/cm	10	Grab ¹
Priority Pollutant Scan ⁶	7	µg/l	Once/Calendar Year ⁸	Grab ¹
Priority Pollutants ⁹	7	µg/l	10	Grab ¹

mgd Million gallons per day
mg/l Milligrams per liter
NTU Nephelometric turbidity units
µg/l Micrograms per liter
µmhos/cm Micromhos/centimeter

- ¹ A grab sample means an individual sample collected at a randomly-selected time over a period not exceeding 15 minutes.
- ² This limitation shall be in effect during the wet season (November 1 to April 30).
- ³ This limitation shall be in effect during the dry season (May 1 to October 31).
- ⁴ The Permittee shall measure pH within 15 minutes from the time the sample was taken.
- ⁵ The Permittee shall test for chlorine immediately after obtaining the sample.
- ⁶ The priority pollutant scan shall include testing for those parameters listed in Attachment A, except asbestos, and shall be conducted in accordance with 40 CFR Part 136.
- ⁷ The discharge limitation shall be the freshwater, acute values listed in HAR, Section 11-54-4(b)(3).
- ⁸ The Permittee shall conduct the priority pollutant scan on the effluent discharge during the first discharge and every calendar year thereafter. If any pollutant is found to exceed the State water quality standard for that pollutant, then the Permittee shall continue to sample for that pollutant per Note 10 below.
- ⁹ The Permittee shall monitor for pollutants found to be in exceedance with the State water quality standards in the initial priority pollutant scan.
- ¹⁰ For intermittent discharges, the sample shall be taken once for each discharge. For continuous discharge, the sample shall be taken at least two (2) times per month (i.e., every other week).

- b. The Permittee shall report the date and the approximate volume of discharge per day. The report shall be submitted in conjunction with the monthly Discharge Monitoring Reports (DMRs).

2. Representative Sampling

- a. Representative samples of the permeate and hypersaline concentrate overflow discharges taken in compliance with the monitoring requirements shall be taken following appropriate treatment.
- b. Samples and measurements taken for the purposes of monitoring shall be representative of the volume and nature of the monitored activity.

3. Test procedures

- a. Test procedures for the analysis of pollutants shall conform with regulations published pursuant to Section 304(h) of the Act.
- b. Unless otherwise noted in this permit, all pollutant parameters shall be determined according to methods prescribed in 40 CFR Part 136, promulgated pursuant to Section 304(h) of the Act. Applications(s) for the use of alternative test methods shall be submitted according to 40 CFR Part 136.4.
- c. The detection limit of the test methods used shall reflect the applicable numerical limitations as specified in HAR, Chapter 11-54. If the test result is not detectable, indicate that the test result is "less than #," where the # is the lowest detection limit of the test method used. Monitoring results shall be conducted according to test procedures approved under 40 CFR Part 136 with the detection limits low enough to measure the compliance with the permit discharge limitations. For cases where the permit discharge limitation is lower than the lowest detection limit of the appropriate test procedure, permit compliance shall be based upon the lowest detection limit of the test method, until otherwise notified.
- d. Recording of Results

The Permittee shall comply with Section 14.c. of the "Standard NPDES Permit Conditions" for each measurement or sample taken pursuant to the requirements of this permit.

4. Sampling Locations

The Permittee shall not change sampling locations set in the Effluent Monitoring Plan without the notification to and the approval from the Director of Health (Director).

5. Waste Load Allocation (WLA) Implementation and Monitoring Plan

The Permittee shall develop and submit a facility-specific WLA implementation and monitoring plan to the Director when a Total Maximum Daily Load (TMDL), which specifies WLAs applicable to the Permittee's discharge, is approved by the Environmental Protection Agency (EPA) within one (1) year of notification of the approval date.

6. Reverse Osmosis Desalination Facility Pilot Testing Project Best Management Practices (BMP) Plan

The Permittee shall develop and implement a Site-Specific BMP Plan to reduce and/or minimize the discharge of pollutants from the facility to achieve and maintain compliance with the conditions of this permit and toward the protection and maintenance of the State receiving waters. The BMP Plan shall include, but not be limited to include a list of all potential sources of spills or leaks and the applicable pollutants, proper storage of chemicals to prevent spills/leakages that may result in the discharge to State receiving waters, operation and maintenance procedures to ensure proper operation, procedures for properly containing, cleaning, and disposing of any spilled material, employee training on proper operations, controls, inspections, and response actions in order to ensure compliance with applicable WQS and permit conditions, etc. The Permittee shall implement the BMP Plan upon its submittal to the Director. The Permittee shall revise and update the BMP Plan as often as needed or as requested by the Director.

7. Other Requirements

- a. The Permittee shall not discharge backwash wastewater into receiving waters.
- b. The Permittee shall only use saline groundwater from production well RO-2 for the source water unless granted a written authorization by the Director to use alternative source water(s).
- c. The Permittee shall use only limestone, CO₂, and sodium hypochlorite in post-treatment and sodium hydroxide (caustic soda) for disinfection unless granted a written authorization by the Director to use other products. The use of other chemicals, cleaning agents, or heat/steam is not authorized.
- d. The Permittee shall periodically evaluate the treatment system in order to ensure compliance with the discharge limitations specified above and the

basic water quality criteria as specified in Section 1 of the attached Standard NPDES Permit Conditions.

- e. The Permittee shall not cause or contribute to a violation of the basic water quality criteria as specified in Section 1 of the "Standard NPDES Permit Conditions."
- f. The Permittee shall monitor the discharge to ensure that it does not exhibit the following characteristics:
 - (1) Floating solids or visible foam
 - (2) Visible oil sheen
 - (3) Odor
- g. There shall be no discharge of materials that will settle to form objectionable sludge or bottom deposits.
- h. Ensure water is discharged in a manner that the discharge shall not cause or contribute to a violation of the basic water quality criteria as specified in HAR, Chapter 11-54, Section 11-54-4.

8. Reopener Clause

In addition to any other grounds specified herein, this permit shall be modified or revoked at any time if, on the basis of any new data, the Director determines that continued discharge may cause unreasonable degradation of the aquatic environment.

B. REPORTING REQUIREMENTS

1. Monitoring Results

- a. The Permittee shall summarize and report monitoring results on a DMR Form (EPA No. 3320-1) in a format that allows direct comparison with the limitations and requirements of this permit.
- b. The Permittee shall submit DMRs for the permeate and hypersaline concentrate overflows to the Director by the 28th day of the month following the month that the discharges occurred (i.e., The DMR for the month of January shall be due on February 28th).
- c. If the facility experiences no discharge during a calendar year, the Permittee shall submit a DMR by January 28th of the following year stating that no discharge had occurred during the calendar year.
- d. All reports, including DMRs, notifications, and updates to information on file shall be submitted through the CWB Compliance Submittal Form for Individual NPDES Permits and NGPCs. This form is accessible through the e-Permitting Portal website at:
<https://eha-cloud.doh.hawaii.gov/epermit/View/home.aspx>. If not already registered, you will be asked to do a one-time registration to obtain your login and password. After you register, click on the Application Finder tool to locate the form. Follow the instructions to complete and submit this form. All submissions shall include a CD or DVD containing the downloaded e-Permitting submission and a completed Transmittal Requirements and Certification Statement for e-Permitting NPDES/NGPC Compliance Submissions Form, with original signature and date.

2. Non-compliance

a. Oral Reports

The Permittee shall orally notify the Clean Water Branch (CWB) at (808) 586-4309 within 24 hours when the following occurs:

- (1) Any exceedance of a pollutant limitation;
- (2) Any non-compliance which may endanger human health or the environment; and

- (3) Any bypass or upset resulting in or contributing to a discharge to State waters.

b. Written Reports

- (1) For those non-compliances requiring immediate oral reporting, the Permittee shall submit a written non-compliance report within five (5) calendar days of the time the Permittee becomes aware of the non-compliance. The report shall be submitted to the CWB in accordance with Part B.1.d.
- (2) The report shall contain a description of the non-compliance and its cause; the period of non-compliance, including exact dates and times, and if the non-compliance has not been corrected, the amount of time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the non-compliance.
- (3) The Director may waive the written report or the five-day deadline on a case-by-case basis if the oral report has been received within 24 hours of the non-compliance.

3. Additional Reporting Requirements

The Permittee shall submit the following site-specific information in accordance with Part B.1.d **at least 30 calendar days before the start of the Reverse Osmosis Desalination Facility Pilot Testing Project activities.**

All questions/concerns that the DOH may have must be answered to the satisfaction of the CWB.

- a. The Site-Specific BMP Plan.
- b. Method(s) to deliver effluent from the discharge point(s) to the receiving waters and how ground sediment/debris will be prevented from being picked up and carried with the effluent.

C. OTHER REQUIREMENTS

1. Schedule of Submission

The Permittee shall develop and implement an effluent monitoring program for all sampling conducted per Part A of this permit. The Permittee shall submit the effluent monitoring program detailing the sampling requirements specified in this permit to the Director within 60 calendar days after the effective date of this permit. The effluent monitoring program shall follow the Data Quality Objectives (DQO) and Quality Assurance (QA) and Quality Control (QC) methods specified in "Guidance on Systematic Planning Using the Data Quality Objectives Process (EPA QA/G-4)," (EPA/240/B-06/001), available at EPA's Quality System Support website <http://www.epa.gov/quality>. In addition to the DQO and QA/QC methods, the effluent monitoring plan shall also include the following:

- a. Sampling locations.
- b. Sampling procedures.
- c. Test method to be used for each parameter.

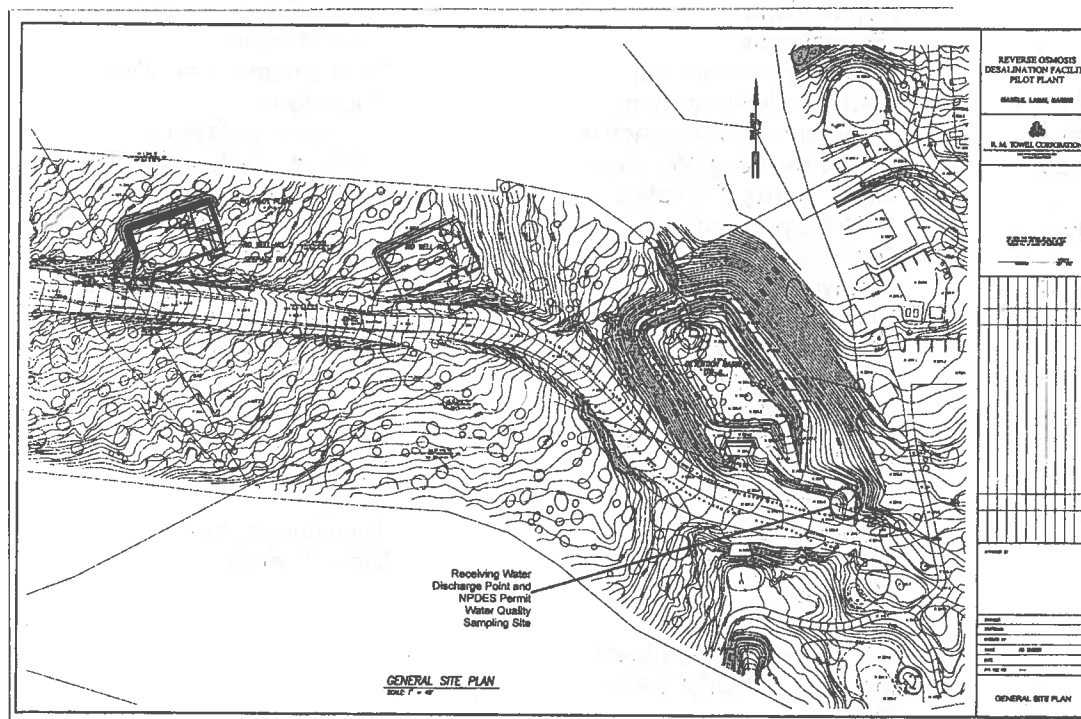
2. Schedule of Maintenance

The Permittee shall submit a schedule to the Director at least 14 calendar days prior to any maintenance of facilities which might result in exceedance of effluent limitations. The schedule shall contain a description of the maintenance and its purpose; the period of maintenance, including exact dates and times; and steps taken or planned to reduce, eliminate, and prevent occurrence of non-compliance.

3. Reopener Provisions

The draft permit may be modified in accordance with the requirements set forth at 40 CFR 122 and 124, to include appropriate conditions or limitations based on newly available information, or to implement any new state water quality criteria that are approved by the EPA.

0021874.FNL.14



ATTACHMENT A: PRIORITY POLLUTANTS

Metals

Antimony
Arsenic
Beryllium
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Selenium
Silver
Thallium
Zinc

Other

Cyanide
Asbestos

Pesticides

Aldrin
Dieldrin
Chlordane
4,4-DDT
4,4-DDE
4,4-DDD
Alpha-Endosulfan
Beta-Endosulfan
Endosulfan Sulfate
Endrin
Endrin Aldehyde
Heptachlor
Heptachlor Epoxide
Alpha-BHC
Beta-BHC
Gamma-BHC(Lindane)
Delta-BHC
PCB 1016
PCB 1221
PCB 1232
PCB 1242
PCB 1248
PCB 1254
PCB 1260
Toxaphene

Base/Neutral Extractables

Acenaphthene
Benzidine
1,2,4-Trichlorobenzene
Hexachlorobenzene
Hexachloroethane
Bis(2-Chloroethyl) Ether
2-Chloronaphthalene
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
3,3-Dichlorobenzidine
2,4-Dinitrotoluene
2,6-Dinitrotoluene
1,2-Diphenylhydrazine
Fluoranthene
4-Chlorophenyl Phenyl Ether
4-Bromophenyl Phenyl Ether
Bis(2-Chloroisopropyl)Ether
Bis(2-Chloroethoxy)Methane
Hexachlorobutadiene
Hexachlorocyclopentadiene
Isophorone
Naphthalene
Nitrobenzene
N-Nitrosodimethylamine
N-Nitrosodiphenylamine
N-Nitrosodi-N-Propylamine
Bis(2-Ethylhexyl)Phthalate
-Butyl Benzyl Phthalate
Di-N-Butyl Phthalate
Di-N-Octyl Phthalate
Diethyl Phthalate
Dimethyl Phthalate
1,2-Benzanthracene
3,4-Benzo-Pyrene
3,4-Benzofluoranthene
11,12-Benzofluoranthene
Chrysene
Acenaphthylene
Anthracene
1,12-Benzoperylene
Fluorene
Phenanthrene
1,2,5,6-Dibenzanthracene
Indeno(1,2,3-CD)Pyrene
Pyrene
TCDD

Acid Extractables

2,4,6-Trichlorophenol
P-Chloro-M-Cresol
2-Chlorophenol
2,4-Dichlorophenol
2,4-Dimethylphenol
2-Nitrophenol
4-Nitrophenol
2,4-Dinitrophenol
4,6-Dinitro-O-Cresol
Pentachlorophenol
Phenol

Volatile Organics

Acrolein
Acrylonitrile
Benzene
Carbon Tetrachloride
Chlorobenzene
1,2-Dichloroethane
1,1,1-Trichloroethane
1,1-Dichloroethane
1,1,2-Trichloroethane
1,1,2,2-Tetrachloroethane
Chloroethane
2-Chloroethyl Vinyl Ether
Chloroform
1,1-Dichloroethylene
1,2-Trans-Dichloroethylene
1,2-Dichloropropane
1,3-Dichloropropene
Ethylbenzene
Methylene Chloride
Methyl Chloride
Methyl Bromide
Bromoform
Bromodichloromethane
Dibromochloromethane
Tetrachloroethylene
Toluene
Trichloroethylene
Vinyl Chloride